APPENDIX A

JEPES SOFTWARE, SOFTWARE SUPPORT, AND QUALIFICATION PROVISIONS

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JEPES SOFTWARE, SOFTWARE SUPPORT, AND QUALIFICATION PROVISIONS

The following outline presents the top level outline for JEPES software, software support, and qualification provisions.

JEPES Maintenance

1. Software
   a. **Source Code**
   b. **Executables**
   c. **Segmentation Scripts**

2. Design
   a. **Design Decisions**
   b. **Architecture** (includes Software Component Interaction)
   c. **Environmental Variables**
   d. **Database Variables**
   e. **External System Interfaces**

3. **Compilation/Build Procedures**

4. **Modification Procedures**

5. **Qualification Provisions**

A.1 Software

The following paragraphs list all the JEPES software, executables and segmentation scripts. Figure A.1-1 shows how the JEPES software dynamically interrelates.

A.1.1 Source Code

This paragraph is organized to present file names and short descriptions for the following types of source files:

a. Ada,
b. Shell Script,
c. SQL,
d. CTL, and
e. APPLIX.

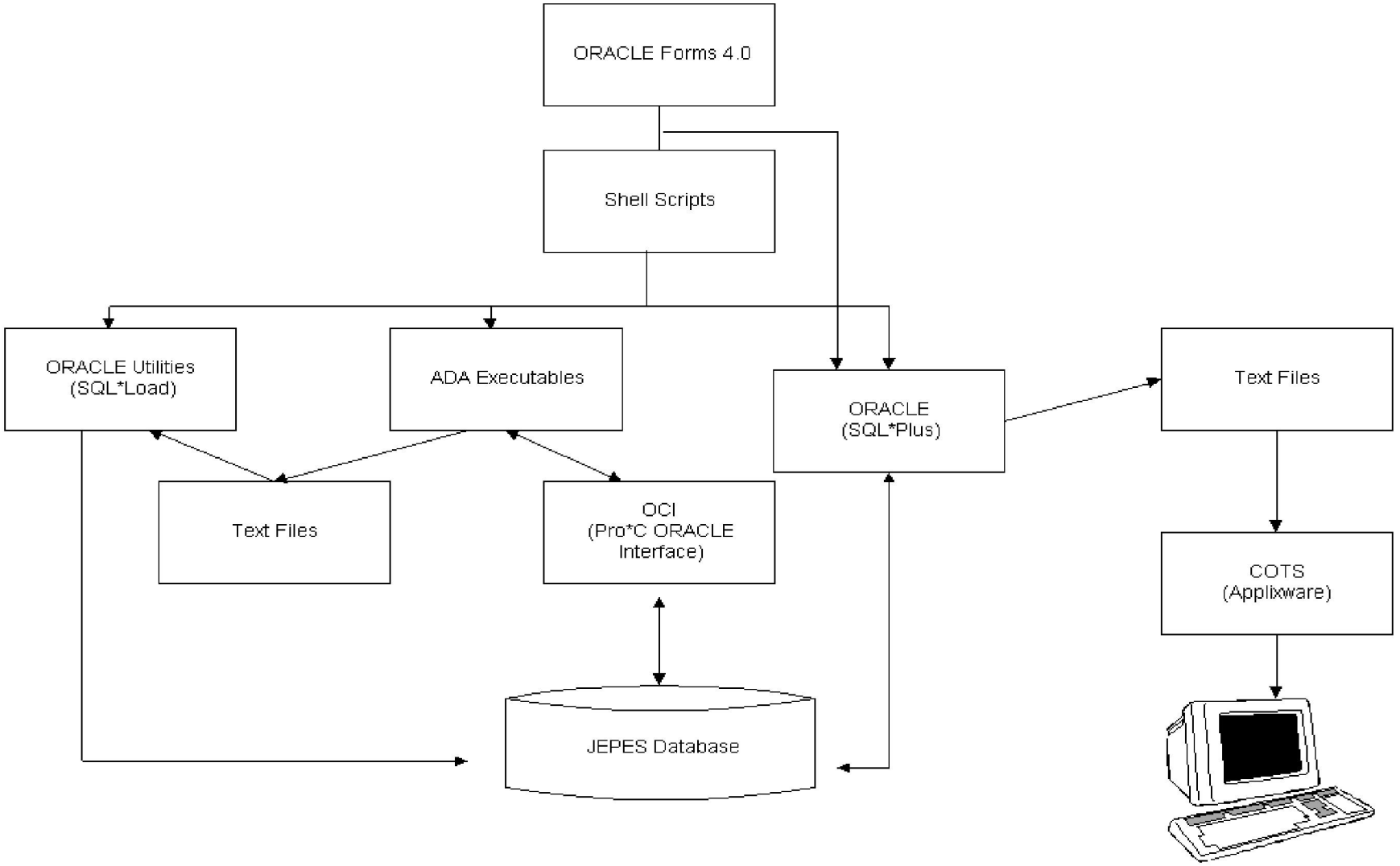

Figure A.1-1. JEPES Software Hierarchy

A.1.1.1 Ada Source Files

The alphabetically ordered list of Ada source files and short descriptions follows:

aassview.ads, .adb - Aggregated Asset View.
afactype.ads - Attrition Factor Types.
ajepes.ada - Apply Assets Driver.
apphost.ads, .adb - Apply Host Nation Resources.
appus.ads, .adb - Apply US Resources.
assdata.ads, .adb - Asset Data.
assetmgr.ads, .adb - Asset Manager.
asstype.ads, .adb - Asset Types.
assview.ads, .adb - Asset View.
attfview.ads, .adb - Attrition Factor View.
basedata.ads, .adb - Base Data.
basetype.ads - Base Types.
bcapdata.ads, .adb - Base Capability Data.
bcview.ads, .adb - Base Complex View.
bfcview.ads, .adb - Base Facility Construction View.
bjepes.ada - Aggregate US Engineering Resources Driver.
bsview.ads, .adb - Backup Supply View.
c_oci.ads, .adb - Pro*C OCI.
ccapdata.ads, .adb - Construction Capability Data.
ccapview.ads, .adb - Construction Capability View.
cjepes.ada - Apply Host Nation/Contractor Resources Driver.
climtype.ads - Climatic Types.
climview.ads, .adb - Climatic Factors View.
cmpview.ads, .adb - Component View.
compdata.ads, .adb - Component Data.
comptype.ads - Component Types.
cpoldata.ads, .adb - Construction Policy Data.
cpoltype.ads, .adb - Construction Policy Types.
dayops.ads, .adb - Day Operations.
dirname.ads, .adb - Directory Name.
djepes.ada - Apply US Resources Driver.
dudata.ads, .adb - Deployed Unit Data.
duview.ads, .adb - Deployed Eng Sensitive Unit View.
engsdata.ads, .adb - Engineering Support Data.
engsview.ads, .adb - Engineering Support View.
engtype.ads - Engineering Types.
enguview.ads, .adb - Engineering Unit Capability View.
epfview.ads, .adb - Equipment Planning Factor View.
eqtype.ads - Equipment Types.
errors.ads, .adb - Errors.
facdata.ads, .adb - Facility Data.
factype.ads, .adb - Facility Types.
fcmpview.ads, .adb - Facility Component View.

fcview.ads, .adb - Facility Category View.
fnamesep.ads, .adb - File Name Separator.
frqview.ads, .adb - Facility Requirement View.
gjepes.ada - LSA Export Driver.
gpfview.ads, .adb - General Planning Factor View.
jepescom.ads - Labor Types.
jepescom.ads - JEPES Common.
lgsfdata.ads, .adb - LOGSAFE Data.
lgsftext.ads, .adb - LOGSAFE Text File.
lgsftype.ads - LOGSAFE Types.
lgsfview.ads, .adb - LOGSAFE Interface View.
ljepes.ada - LOGSAFE Driver.
logsafe.ads, .adb - LOGSAFE Interface File.
lsa.ads, .adb - LSA Interface File.
lsadata.ads, .adb - LSA Data.
lsamgr.ads, .adb - LSA Manager.
lsatext.ads, .adb - LSA Text File.
lsatype.ads, .adb - LSA Types.
lsaview.ads, .adb - LSA Export View.
manhour.ads, .adb - Manhour.
oci.ads, .adb - OCI.
opview.ads, .adb - Operation View.
ordesc.ads, .adb - ORACLE Descriptors.
orsqsrch.ads, .adb - Ordered Sequential Search.
pfcpview.ads, .adb - Plan Fac Construction Policy View.
pfdata.ads, .adb - Planning Factors Data.
pftype.ads - Planning Factors Types.
phasview.ads, .adb - Phase-In Efficiency View.
pidata.ads, .adb - Planner Input Data.
piview.ads, .adb - Planner Input View.
portint.ads - Portable Integers.
portreal.ads - Portable Reals.
prjview.ads, .adb - Project View.
projdata.ads, .adb - Project Data.
projtext.ads, .adb - Project Text File.
projtype.ads, .adb - Project Types.
prtype.ads - Priority Types.
ratetype.ads - Rate Types.
regtype.ads - Region Types.
reqgen.ads, .adb - Requirements Generation.
rgbybase.ada - Bybase Requirements.
rgequip.ada - Equipment Requirements.
rggenreq.ada - Generate Requirements.
rgpeople.ada - People Requirements.
rgplan.ada - Planner Input Requirements.
rgtotpop.ada - Total Population Requirements.
rgua.ada - Unit Allocated Requirements.

rundata.ads, .adb - Run Data.
runtype.ads - Run Data Types.
satpdata.ads, .adb - Satisfied Project Data.
satpview.ads, .adb - Satisified Project View.
schdproj.ads, .adb - Scheduled Project.
scrcurs.ads, .adb - Screen Cursor.
servtype.ads, .adb - Service Types.
sjepes.ada - LSA Driver.
slnklist.ads, .adb - Single Linked List.
sprjdata.ads, .adb - Scheduled Project Data.
sprjview.ads, .adb - Scheduled Project View.
sqlengin.ads, .adb - SQL Engine.
ssubview.ads, .adb - Skill Substitution View.
stormgr.ads, .adb - Storage Manager.
strings.ads, .adb - Strings.
timeutil.ads, .adb - Time Utilities.
tjepes.ada - Requirements Generation Driver.
ueqview.ads, .adb - Unit Equipment View.
unitdata.ads, .adb - Unit Data.
unittype.ads - Unit Types.
unsigned.ads - Unsigned.
uprjdata.ads, .adb - Unscheduled Project Data.
uprjview.ads, .adb - Unscheduled Project View.
usermsg.ads, .adb - User Message.
usresrc.ads, .adb - US Resources.
utview.ads, .adb - Unit Type View.
wardamag.ads, .adb - War Damage.
wardtype.ads - War Damage Types.
wardview.ads, .adb - War Damage Factor View.
warnings.ads, .adb - Warnings.
wghtypes.ads - Weight Types.

A.1.1.2 Shell Script Files

The alphabetically ordered list of C-shell script source files and short descriptions follows:

a_er_wrn.s - Apply Assets Error Warning.
adhoc.s - Adhoc Queries.
apengerr.s - Display Apply Engineering Errors.
apengper.s - Print Apply Engineering Errors.
apengpwn.s - Print Apply Engineering Warnings.
apengwar.s - Apply Engineering Warnings.
apengwrn.s - Display Apply Engineering Warnings.
appass.s - Apply Assets Driver.
appengre.s - Apply Engineering Resources Driver.
assethn.s - Host Nation Assets.
assets.s - Assets.

assetus.s - US Assets.
asstst1.s - All Asset-Satisfied Requirements Report Driver.
asstst2.s - Asset-Satisfied Requirements Report by Region/Time Driver.
asstust1.s - All Asset-Unsatisfied Requirements Report Driver.
asstust2.s - Asset-Unsatisfied Requirements Report by Region/Time Driver.
bascmplx.s - Base Complex.
base_pop.s - Base Population Driver.
base_req.s - Time-phased Requirements for a Base Complex Driver.
baseloc.s - Base Location.
basfccpy.s - Base Fac Construction Policy.
bckupsup.s - Backup Supply.
ca_imp.s - Import Combined Asset Table.
cards.s - Cards.
cmpnt.s - Component.
cmpnts.s - Components.
cnstr1.s - All Construction Requirements Report Driver.
cnstr2.s - Construction Requirements Report by Region/Time Driver.
cnstr3.s - Construction Requirements Report for Analysis Period Driver.
cnstr4.s - Unsatisfied Construction Requirements Driver.
crtables.s - Create Tables, Indices and Synonyms.
crtgraph.s - Create a Graph.
del_text.s - Delete Text Files.
dodir.s - List Export Files.
dolist.s - List Report Subdirectories.
e_er_wrn.s - Apply Engineering Error Warning.
engsupp.s - Engineering Support.
enguncap.s - Engineering Unit Capability.
equipmnt.s - Equipment Type.
execute.s - Initiate X-Term/Execute Command.
facompnt.s - Facility Component.
faltcd.s - Facility Category.
g_er_wrn.s - Requirements Generation Error Warning.
get_current_printer.csh - Gets Current Printer Selected by User Driver.
get_current_printer_wish.csh - Gets/Displays a List of Printers Using Tcl/Tk Driver.
get_current_printer_wish.tk - Gets/Displays a List of Printers Using Tcl/Tk Driver.
get_current_printer_xterm.csh - Gets/Displays a List of Printers Using an xterm.
getyn.s - Wait for Users Response.
imp_text.s - Import Text Files Driver.
imp_v6.s - Import V6 ORACLE Database.
imtp.s - Import TPFDD Driver.
imtu.s - Import TUCHA Driver.
invalid_user.s - Validate as an ORACLE or a JEPES User.
j_exp.s - Export JEPES Tables.
j_imp.s - Import JEPES Tables.
jgraphs.s - JEPES Graphic Driver.
l_er_wrn.s - LSA Error Warning.
load_text.s - Delete Text Files.
logsafe.s - Execute LOGSAFE.

lsa_capb.s - Percent Available Driver.
lsa_err.s - Display/Print LSA Errors.
lsa_exp.s - LSA Export File.
lsa_init.s - Generate LSA Data.
lsa_wrn.s - Display/Print LSA Warnings.
makedir.s - Create JEPES_USER_DIR Directories.
nuc.s - Non-Unit Cargo.
nucprt.s - Generate Non-Unit Cargo Report.
para_dep - Dependent Tables Parameter List.
para_ind - Independent Tables Parameter List.
para_jep - JEPES Tables Parameter List.
pause.s - Wait User Input.
plan_pop.s - Time-phased Population for an OPLAN Driver.
plan_req.s - Time-phased Requirements for an OPLAN Driver.
plfacpol.s - Plan Fac Construction Policy.
plngfact.s - General and Equipment Planning Factor.
plngfctr.s - Planning Factor.
plninreq.s - Planner Input Requirement.
print.s - Print Reports.
print_file.awk - Formats the File, Placing Information at Top and Bottom.
print_file.csh - Prints the File.
print_file.tk - Displays the Print File Message.
rebase.s - Update Asset/War Damage Factor/ Deployed Eng Sens Unit Tables.
regtime1.s - Construction Requirements Report by Time Driver.
regtime2.s - Construction Requirements Report by Region/Time Driver.
reqgen.s - Execute Requirement Generation.
runadaup.s - Load Project Table.
runimptext.s - Execute Import Text Files Driver.
runjepes.s - Execute JEPES.
runjgraphs.s - Execute JEPES Graphic Driver.
shutdown.s - Shutdown JEPES.
startup.s - Start JEPES.
tp_pop.s - Time-phased Population for a Base Complex Driver.
unschprj.s - Load Unscheduled Project.
upasstwar.s - Extract Combined Asset Driver.
v-2i-1.s - Percent Forces Sustainable Driver.
v-2i-2.s - Minimum Percent by Sub-Element Driver.
wardamhn.s - Host Nation War Damage.
wardamus.s - US War Damage.

A.1.1.3 SQL Files

The alphabetically ordered list of SQL files and short descriptions follows:

aggrea.sql - Aggregate Assets.
aset_chk.sql - Analyze Asset Table.
asstst1.sql - All Asset-Satisfied Requirements Report.
asstst2.sql - Asset-Satisfied Requirements Report by Region.

asstust1.sql - All Asset-Unsatisfied Requirements Report.
asstust2.sql - Asset-Unsatisfied Requirements Report by Region/Time.
base_pop.sql - Base Population.
base_req.sql - Time-phased Requirements for a Base Complex.
basepop.sql - Update Population for Base Complex Table.
bcn_wf.sql - Base Complex Weighting Factor and add to the LSA_Interface Table.
bse_loc.sql - Analyze Base Location Table.
bsecomp.sql - Analyze Base Complex Table.
ca_trunc.sql - Truncate Combined Asset Table.
clraggas.sql - Clear Aggregated Asset Table.
clrcncap.sql - Clear Construction Capability Table.
cnstr1.sql - All Construction Requirements Report.
cnstr2.sql - Construction Requirements Report by Region/Time.
cnstr3.sql - Construction Requirements Report for Analysis Period.
cnstr4.sql - Unsatisfied Construction Requirements Report.
comp_sel.sql - Select Component Codes.
cre_rfa_syn.sql - Recreate RFA Synonyms Dropped During Import.
cre_syn.sql - Create JEPES Synonyms.
crecncap.sql - Recreate Construction Capability Table.
crgeoloc.sql - Create Geoloc_Tab View.
crlsareq.sql - Create LSA Requirement Table.
crprejct.sql - Create Pre_project and Preproj Tables.
crschdpr.sql - Create/Load Scheduled Project Table.
crtables.sql - Create Tables and Indices.
d_drop.sql - Drop Dependent Tables.
del_imex.sql - Delete from Imp_Exp_List Table.
del_qry.sql - Delete Query Tables.
drop_syn.sql - Drop RFA Private Synonyms.
equiplan.sql - Analyze Equipment Planning Factor Table.
equiptyp.sql - Analyze Equipment Type Table.
facreq.sql - Analyze Facility Requirement Table.
facrpt.sql - Analyze Facility Category Table.
find_rfa.sql - Determine Whether The Current USER Is a RFA User.
fix_p_i.sql - Update Planner Input Requirement Table.
fix_s_p.sql - Update S_P_Tab Table.
i_drop.sql - Drop Independent Tables.
imp_v6.sql - Create JEPES Tables and Indexes.
imp_v6_1.sql - Import V6 ORACLE Database.
imp_v6_obs.sql - Create Obsolete JEPES Tables.
imtp.sql - Import TPFDD.
imtu.sql - Import TUCHA.
indxproj.sql - Create Project Table Index.
init_op.sql - Initialize OPLAN.
initproj.sql - Create Project Table.
insertpd.sql - Insert Periods into LSA_Interface Table.
j_drop.sql - Drop JEPES Tables.
loadproj.sql - Load Project Table.
logsafe.sql - Update LOGSAFE_Interface Table.

lsa_agg.sql - Aggregate LSA Information into LSA_Interface Table.
lsa_capb.sql - Percent Available.
lsa_exp.sql - Update LSA_Export Table.
lsa_gen.sql - Update LSA_Interface Table.
lsa_tabs.sql - Updates Plan_Sum and Base_Sum Tables.
nuc.sql - Update Non-Unit Cargo Table.
nucprt.sql - Generate Non-Unit Cargo Report.
plan_pop.sql - Time-phased Population for an OPLAN.
plan_req.sql - Time-phased Requirements for an OPLAN.
planreq.sql - Analyze Planner Input Requirements Table.
preproj.sql - Create Preproj Table.
preunprj.sql - Create Pre_Unscheduled_Project Table.
rebase.sql - Update Asset/War Damage Factor/ Deployed Eng Sens Unit Tables.
regtime1.sql - Construction Requirements Report by Time.
regtime2.sql - Construction Requirements Report by Region/Time.
reindex.sql - Reindex JEPES Indices.
req_base.sql - Requirement Generation for a Base Complex Report.
req_dmp.sql - Requirement Generation Report.
req_lst.sql - List of Requirements for LSA Sub-element.
req_mrg.sql - Merge Asset-satisfied and Unsatisfied Requirements into the LSA_Requirement Table.
reset_op.sql - Reset OPLAN.
s_p_tab.sql - Create S_P_Tab Table.
tbl_conflict.sql - Convert Table Name To Jepes Unit Type and Jepes Equipment Type.
tbl_conflict_v6.sql - Convert Table Name to Jepes Unit Type and Jepes Equipment Type for ORACLE 6 export files.
tp_pop.sql - Time-phased Population for a Base Complex.
trooprpt.sql - Analyze Troop (Deployed Eng Sensitive Unit) Table.
uniteq.sql - Analyze Unit Equipment Table.
unitrpt.sql - Analyze Unit Type Table.
upasset.sql - Update Asset Table From Combined Asset.
upwardam.sql - Update War Damage Factor Table from Combined Asset.
v-2i-1.sql - Percent Forces Sustainable.
v-2i-2.sql - Minimum Percent by Sub-Element.
v-2i-vw.sql - Create V_2i View.
validate_user.sql - Validate JEPES User.

A.1.1.4 CTL Files

The alphabetically ordered list of CTL files and short descriptions follows:

assethn.ctl - Load assethn.txt into Asset Table.
assetus.ctl - Load assetus.txt into Asset Table.
bascmplx.ctl - Load bascmplx.txt into Base Complex Table.
baseloc.ctl - Load acard.txt into Base Location Table.
basfccpy.ctl - Load dcard.txt into Base Fac Construction Policy Table.
bckupsup.ctl - Load ccard.txt into Backup Supply Table.
bybase.ctl - Load bybase.txt into Pre_project Table.
cmpnt.ctl - Load cmpnt.txt into Component Table.

engsupp.ctl - Load pcard.txt into Engineering Support Table.
enguncap.ctl - Load enguncap.txt into Engineering Unit Capability Table.
equip.ctl - Load equip.txt into Pre_project Table.
equipmnt.ctl - Load plngfact.txt into Equipment Type Table.
facompnt.ctl - Load cmpnt.txt into Facility Component Table.
faltcd.ctl - Load faccat.txt into Facility Category Table.
imp_exp.ctl - Load dir.log into Imp Exp List Table.
people.ctl - Load people.txt into Pre_project Table.
planinp.ctl - Load planinp.txt into Pre_project Table.
plfacpol.ctl - Load gcard.txt into Plan Fac Construction Policy Table.
plngfact.ctl - Load plngfact.txt into Equipment Planning Factor and General Planning Factor Tables.
plninreq.ctl - Load lcard.txt into Planner Input Requirement Table.
sat_req.ctl - Load satisfd.txt into LSA Requirement Table.
schedprj.ctl - Load schdld.txt into Scheduled Project Table.
totpop.ctl - Load totpop.txt into Pre_project Table.
unitallo.ctl - Load unitallo.txt into Pre_project Table.
unschprj.ctl - Load unschdld.txt into Pre_Unscheduled Project Table.
usr_qry.ctl - Load dir.log into Usr Query Table.
usr_qry1.ctl - Load dir.log into Usr Query1 Table.
wardamhn.ctl - Load assethn.txt into War Damage Factor Table.
wardamus.ctl - Load assetus.txt into War Damage Factor Table.

A.1.1.5 APPLIX Files

The alphabetically ordered list of APPLIX files and short descriptions follows:

JEPES.as - Graph Defaults.
JEPES_ax_prof3 - Applixware Defaults.
JEPES_Create_Bar_Graph.am - Create Bar Graph.
JEPES_Create_Line_Graph.am - Create Line Graph.
JEPES_Display_Graph.am - Display Graph.
JEPES_Display_Spreadsheet.am - Display Spreadsheet.
JEPES_Exit_Applix.am - Exit Applixware.
JEPES_Graph_Info.am - Define Graph.
JEPES_Menu_File - Menu File.
JEPES_Print.am - Print Dialog.
JEPES_Print.d - Print Information.
JEPES_Print_Graph.am - Print Graph.
JEPES_Print_Spreadsheet.am - Print Spreadsheet.
JEPES_Start_Up.am - Start Spreadsheet Task.

A.1.2 Executables

This paragraph is organized to present file names and short descriptions for the following types of executable files:

a. Ada, and
b. ORACLE Forms 4.0.

A.1.2.1 Ada Executables

The alphabetically ordered list of Ada executables and short descriptions follows:

ajepes.x - Apply Assets Executable.
bjepes.x - Aggregate US Engineering Resources Executable.
cjepes.x - Apply HN and Contractor Engineering Resources Executable.
djepes.x - Apply US Engineering Resource Executable.
gjepes.x - LSA Export Executable.
ljepes.x - LOGSAFE Executable.
sjepes.x - LSA Data Executable.
tjepes.x - Requirement Generation Executable.

A.1.2.2 ORACLE Forms 4.0 Executables

The alphabetically ordered list of ORACLE Forms 4.0 executables and short descriptions follows:

analysdb.fmx - Database Analysis.
appass.fmx - Apply Assets.
appengre.fmx - Apply Engineering Resource.
assetwar.fmx - Asset and War Damage Factor Tables.
backup.fmx - Backup Supply Table.
basefac.fmx - Base Fac Construction Policy Table.
bcmploc.fmx - Base Complex and Base Location Tables.
civrpt.fmx - Standard Reports.
combset.fmx - Combined Asset Table.
comp.fmx - Component Table.
damon.fmx - War Damage Assessment.
depeng.fmx - Deployed Eng Sensitive Unit Table.
edit_hlp.fmx - Edit Tables Help Screen.
engattr.fmx - Engineer Attrition.
engbase.fmx - Engineering Force Utilization for Base Only or Entire Region.
engsup.fmx - Engineering Support Table.
engunca.fmx - Engineering Unit Capability Table.
equipty.fmx - Equipment Type Table.
equplfc.fmx - Equipment Planning Factor Table.
faccat.fmx - Facility Category Table.
faccomp.fmx - Facility Component Table.
facreq.fmx - Facility Requirement Table.
fcctsub.fmx - Facility Category Substitute Table.
gnrlplfc.fmx - General Planning Factor Table.
j_expimp.fmx - Export/Import JEPES Database.
jepes2.fmx - Database Maintenance Menus.
lsa.fmx - LSA.
menu4.fmx - JEPES Main Menu.

nuc.fmx - Non-Unit Cargo.
oper.fmx - Operation Table.
oplan.fmx - OPLAN Identification.
phasein.fmx - Engineer Phase-In Efficiency.
plfccn.fmx - Plan Facility Construction Policy Table.
plninpre.fmx - Planner Input Requirements Table.
project.fmx - Project Table.
regtime.fmx - Region/Time Constraints.
regtimer.fmx - Region/Time Constraints.
reqmain.fmx - Requirement Generation.
skillsub.fmx - Skill Substitution.
unit_typ.fmx - Unit Type Table.
unitequi.fmx - Unit Equipment Table.
usr_quer.fmx - User Defined Reports.

A.1.3 Segmentation Scripts

The JEPES segmentation process followed the GCCS Integration Standard (see Section 2.0, Reference item j.). JEPES is divided into two segments. The OJEPES segment loads the ORACLE database portion of the JEPES application onto the server machine. The second segment, the JEPES segment loads the JEPES application onto the client machine. For more information on JEPES segmentation process refer to the Installation Instruction Input for JEPES (see Section 2.0, Reference item i.).

A.1.3.1 OJEPES Segment Files

OJEPES has five sets of files:

1. OJEPES Characteristics, which uniquely identifies the hardware and software characteristics of the specific ORACLE version used by the JEPES application as specified in the corresponding JEPES segment;

2. Post Install, which allows a DBA to install the JEPES application on a GCCS platform;

3. Deinstall, which allows a DBA to remove the JEPES application from a GCCS platform;

4. Create a new JEPES User, which allows a DBA to add a new JEPES user to the list of authorized users; and

5. Drop a JEPES User, which allows a DBA to remove a JEPES users from the list of authorized users.

The files in each set follow:

1. OJEPES Characteristics
   a. COTS List (**Requires**)
   b. Hardware (**Hardware**)
   c. Model Name (**ModName**)
   d. Release Notes (**ReleaseNotes**)

e. Security (**Security**)
f. Segment Type (**SegType**)
g. JEPES Version (**VERSION**)
h. Validation (**Validated**)
i. JEPES Environment (**JEPESenv**)
j. PATH Environment (**UpdatePATHenv**)

2. Post Install
   a. Post Install JEPES (**PostInstall**)
   b. Assign JEPES Tablespace Directory (**PostInstall.1**)
   c. Create JEPES Tablespace (**create_tablespace.sql**)
   d. Check the Role of the User (**check_oracle_user.sql)**
   e. Create ORACLE Account for the Specified User (**create_oracle_account.sql**)
   f. Create a Role for the JEPES User (**create_role.sql**)
   g. Verify Creating JEPES Tablespace During Postinstall (**PostInstall.verify**)
   h. Determine Whether Primary JEPES Site (**determine_database_site.sql**)
   i. Determine Password for ORACLE Account (**determine_oracle_password**)
   j. Grant Access on JEPES Primary User's Tables to RPI (**grant_access_to_RPI.sql**)
   k. Grant Access from JOPES DB to JEPES Role (**grant_access_to_role.sql**)
   l. Message to the Installer Concerning Existing Users (**PostInstall.message**)

3. Deinstall
   a. Deinstall JEPES (**DEINSTALL**)
   b. Dropping JEPES Tablespace Warning (**DEINSTALL.warning**)
   c. Get ORACLE IDs of JEPES's Users (**get_list_of_users.sql**)
   d. Verify dropping JEPES Tablespace During Deinstall (**DEINSTALL.verify**)
   e. Remove the JEPES ORACLE Role (**remove_role.sql**)
   f. Drop JEPES User (**drop_jepes_user.csh**)
   g. Drop JEPES User's Synonyms and Views (**drop_jepes_user.sql**)

4. Create a New JEPES User
   a. Create JEPES User (**jepes_user.csh**)
   b. Grant TABLE_MASTER Permissions (**jepes_user.sql**)
   c. Create JEPES Tables, Indices, Views and Synonyms (**jepes_user_su.csh**)
   d. Create JEPES Tables Driver (**crtables.s**)
   e. Create JEPES Tables and Indices (**crtables.sql**)
   f. Create JEPES Tables (**jepes.sql**)
   g. Create JEPES Indices (**jepesind.sql**)
   h. Create Geoloc Table View (**crgeoloc.sql**)
   i. Create JEPES Synonyms (**cre_syn.sql**)
   j. Message to Installer Concerning New Users (**jepes_user.message**)
   k. Determine Password for ORACLE Account (**determine_oracle_password**)
   l. Check the Role of the User (**check_oracle_user.sql**)

5. Drop a JEPES User
   a. Drop JEPES User (**drop_jepes_user.csh**)
   b. Drop JEPES User's Tables (**drop_jepes_user_tables.sql**)

c. Drop JEPES User's Synonyms and Views (**drop_jepes_user.sql**)

d. Drop JEPES Tables of Existing ORACLE User (**drop_jepes_user.verify**)
e. Remove ORACLE Account for Specified User (**remove_oracle_account.sql**)

A.1.3.2 JEPES Segment Files

JEPES has three sets of files:

1. JEPES Characteristics, which identifies hardware and software characteristics of a specific JEPES release;

2. Post Install, which allows a Database Administrator (DBA) to install the JEPES application on a GCCS platform; and

3. Deinstall, which allows a DBA to remove the JEPES application from a GCCS platform.

The files in each set follow:

1. JEPES Characteristics
   a. COTS List (**Requires**)
   b. Hardware (**Hardware**)
   c. Model Name (**ModName**)
   d. Profiles (**Profiles.JEPES**)
   e. Release Notes (**ReleaseNotes**)
   f. Security (**Security**)
   g. Segment Type (**SegType**)
   h. JEPES Version (**VERSION**)
   i. Validation (**Validated**)
   j. JEPES Icons Description (**LaunchDesc.JEPES**)
   k. JEPES Icons List (**LaunchList.JEPES**)
   l. JEPES Environment (**JEPESenv**)
   m. JEPES Abstract (**Abstract**)
   n. PATH Environment (**UpdatePATHenv**)

2. Post Install
   a. Post Install JEPES (**PostInstall**)
   b. Change File Permissions (**PostInstall.setmod**)
   c. Determine Whether Primary JEPES Site (**determine_database_site_sql**)
   d. Determine Password for ORACLE Account (**determine_oracle_password.sql**)
   e. Verify Existence of UNIX Account (**verify_UNIX_account.sql**)
   f. Create UNIX Account (**create_UNIX_account.sql**)

3. Deinstall
   a. Deinstall JEPES (**DEINSTALL**)
   b. Remove UNIX Account (**remove_UNIX_account.sql**)

A.2 Design

The following paragraphs describe the JEPES design.

A.2.1 Design Decisions

The objective for the JEPES Version 4.0 in GCCS was to closely model the JEPES 3.0 PC version. The goal was to migrate the system from the PC to the UNIX machine. The only new functionality to be added was the import of TPFDD, TUCHA from the JOPES Core database and Combined Asset data from RPI instead of the legacy database. This new functionality was added to the Utilities work package. The ORACLE database was upgraded from Version 6.0 to Version 7.1. This upgrade required changes to the SQL and Ada code because ORACLE 7 permits variable length characters as opposed to fixed length characters required with ORACLE 6.0. The ORACLE Forms was upgraded from 3.0 to 4.0. ORACLE Forms 4.0 provides the capability to use a mouse to click on buttons for navigational purposes. This required adding button capabilities to the JEPES screens. The Windows-based WingZ COTS tool for graphics generation in JEPES 3.0 was replaced with Applixware. Also, the capability to print Requirements Generation graphics was added. All the DOS BAT files were converted to C-Shell Scripts. Besides these additions/upgrades, all other functionality remains the same. For more information on JEPES design decisions, please refer to the Technical Report - Study/Service Specifying Procedures and Recommendation to Migrate JEPES to the JOPES C/S Environment (see Section 2.0, Reference h.).

A.2.2 Architecture

The JEPES architecture can be described in hierarchical fashion. Each element in the hierarchy consists of a set of physical files. The highest elements are termed work packages and provide the functional capabilities presented in Paragraph 1.2. Work packages themselves consist of "logical units," which are logical collections of physical files. Finally, each logical unit consists of one or more "functional units," each of which corresponds to a single physical file.

JEPES contains 12 work packages, which are depicted in Figure A.2.2-1. The allocation of the capabilities listed in Paragraph 1.2 to these work packages are defined in the following fashion:

1. Four of the capabilities are provided by corresponding work packages:

    a. Utilities,
    b. Database Maintenance,
    c. Requirements Generation, and
    d. Reports/Queries.

2. The Requirements Analysis capability is provided by two work packages:

    a. Requirements Analysis - Apply Assets, and
    b. Requirements Analysis - Apply Engineering Resources.

3. Support Functions is implemented by two work packages:

    a. Support Functions - Non-Unit Cargo, and
    b. Support Functions - LSA.

4. Three additional work packages contain capabilities used by several of the previous work packages:

    a. Common Ada Packages - Data/View Packages,
    b. Common Ada Packages - Common Packages, and
    c. Common JEPES Files.

5. The final work package, Import Text Files, provides the user the capability to import old WWMCCS files into JEPES tables. This capability is provided outside the JEPES application via a separate JNAV screen icon titled "JIMPTEXT."

The identification of the elements of the next level in the JEPES hierarchy, the logical unit level, is depicted in Figures A.2.2-2 through 13. For each work package, the logical units belonging to the work package are listed.

The identification of the elements in the lowest level in the JEPES hierarchy, the functional unit level, is presented in textual format throughout the remainder of this paragraph. The functional units are listed by work package by logical unit. The work package name appears in the paragraph title: for example, A.2.2.2 Database Management contains the functional units in Database Management. The logical units for the work package are listed in numerical order. The individual functional units are listed in alphabetic order within its logical unit. For example, Edit Operation Table is the sixth ("f") functional unit of Edit Dependent Table, the first logical unit of the Database Management work package. To facilitate maintenance, Ada executables are listed as functions within logical units along with source files.